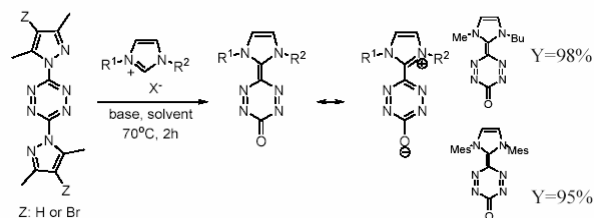


New Class of Compounds: Quinoidal Tetrazines

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Tetrazine compounds are frequently used in pesticides, pharmaceutical products, explosives etc. Using Arduengo-type carbenes [1] we have prepared and characterized a series of air stable quinoidal tetrazines which represent a new class of compounds.



The surprisingly high torsion angle between the pyrazolyl and tetrazine rings (37–43°) as well as C–C, N–N, and C–O bond distances indicate the quinoidal nature of these compounds without conjugation of the rings. The supramolecular motif of quinoidal tetrazines include stave-like ordering of the molecules. Packing, van der Waals interactions as well as chirality of the compounds when R¹ or R² are chiral will be discussed.

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[1] Arduengo A., *J. Am. Chem. Soc.*, 1991, **113**, 361.

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